Applicant: Aladar A. Szalay et al. Attorney Docket No.: 3800002.00055/4804US Amendment and Response

Serial No.: 10/516,785

Filed : June 27, 2005

## AMENDMENTS TO THE CLAIMS:

Please amend claims 1 and 23 as follows. This listing of claims replaces all prior versions, and listings of claims, in the application.

## LISTING OF CLAIMS:

1. (Currently Amended) A method for detecting wounded or inflamed tissue inside of a subject, comprising:

identifying a subject to be tested for the presence or absence of wounded tissue or inflamed tissue therein;

systemically administering to the a subject in whom the presence or absence of a wounded tissue or inflamed tissue or a disease associated therewith is to be detected, a bacterium, wherein:

the bacterium is detectable in the subject;

the bacterium replicates in the subject;

the bacterium is not pathogenic to the subject and is recognized by the immune system of the subject;

the bacterium is not targeted; and

after a sufficient time for the bacterium to accumulate in wounded or inflamed tissues inside of the subject, imaging the detectable bacterium inside of the subject to detect accumulation of the bacterium in the subject, and thereby detecting wounded or inflamed tissues inside of the subject monitoring the subject to detect the accumulation of the bacterium at or in a wounded tissue or inflamed tissue inside of the subject, wherein detection of the accumulation indicates the location of wounded tissue or inflamed tissue inside of the subject, thereby detecting wounded or inflamed tissue inside of the subject.

- 2. (Previously Presented) The method of claim 1, wherein the bacterium encodes a protein(s) for the therapy of the detected wounded or inflamed tissue.
- 3. (Withdrawn) The method of claim 1, wherein the bacterium encodes a luminescent or fluorescent protein.
- (Withdrawn) The method of claim 1, wherein the bacterium encodes a luciferase, red fluorescent protein or green fluorescent protein.
- (Withdrawn) The method of claim 4, wherein the bacterium encodes a luciferase and a protein(s) for the production of a substrate for a luciferase.
- (Previously Presented) The method of claim 1, wherein the bacterium encodes 6. a protein that induces a signal detectable by magnetic resonance imaging (MRI) or that binds to contrasting agent, chromophore or a ligand.

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> (Cancelled). 7.

- 8. (Cancelled).
- (Previously Presented) The method of claim 1, wherein the bacterium is 9. selected among an attenuated Salmonella typhimurium, an attenuated Vibrio cholerae, an attenuated Listeria monocytogenes and E. coli.
  - 10. (Cancelled).
  - 11. (Cancelled).
- 12. (Previously Presented) The method of claim 2, wherein the protein for the therapy is an enzyme that causes cell death or an enzyme that causes the digestion of debris.
- (Withdrawn) The method of claim 2, wherein the subject in whom the 13. presence or absence of wounded tissue or inflamed tissue is detected has a disease selected among endocarditis, pericarditis, inflammatory bowel disease, low back pain (herniated nucleus pulposis), temporal arteritis, polyarteritis nodosa and an arthritic disease.
- (Previously Presented) The method of claim 2, wherein the subject for whom the presence or absence of wounded tissue or inflamed tissue is detected has an atherosclerotic disease.
- (Withdrawn) The method of claim 2, wherein the subject for whom the 15. presence or absence of wounded tissue or inflamed tissue is detected has a disease that is selected among coronary artery disease, peripheral vascular disease and cerebral artery disease.
- 16. (Previously presented) The method of claim 1, wherein the monitoring is performed by magnetic resonance imaging (MRI).
  - 17. (Cancelled).
- (Previously Presented) The method of claim 2, wherein the bacterium contains 18. an inducible promoter that regulates the expression of the therapeutic protein.
  - 19. (Cancelled).
  - 20. (Cancelled).
  - (Previously presented) The method of claim 2, wherein: 21.

the disease is an atherosclerotic disease; and

the therapeutic protein is selected from among a lipase, protease, lysozyme, proapoptotic factor and PPAR-agonist.

22. (Previously Presented) The method of claim 1, further comprising: administering a therapeutic agent for the therapy of a wounded tissue, inflamed tissue or a disease associated therewith.

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(Currently Amended) The A method of claim 1, for detecting wounded or 23. inflamed tissue inside of a subject, comprising:

wherein the bacterium is administered intravenously or intramuscularly administering to a subject in whom the presence or absence of a wounded tissue or inflamed tissue is to be detected, a bacterium, wherein:

the bacterium is detectable in the subject;

the bacterium replicates in the subject;

the bacterium is not pathogenic to the subject and is recognized by the immune system of the subject;

the bacterium is not targeted; and

after a sufficient time for the bacterium to accumulate in wounded or inflamed tissues inside of the subject, monitoring or imaging the detectable bacterium inside of the subject to detect accumulation of the bacterium in the subject, and thereby detecting wounded or inflamed tissues inside of the subject.